

Patent Claims

1. A method for optimizing the transmission properties and power loss of a high voltage part (HV),
5 integrated in a subscriber line circuit for connecting a subscriber line (TL), within a digital telephone exchange, where, in the high voltage part, in the direction toward the subscriber line, not only telephone signals, which are situated within a
10 frequency band provided for speech, but also data signals, which are situated in a frequency band above that provided for speech and can be transmitted at a high rate, are amplified and are supplied to the subscriber line, and where telephone signals, situated
15 within the frequency band provided for speech, coming from the subscriber line and also data signals, situated in a frequency band above that provided for speech, are measured for the purposes of further processing,
20 characterized in that current sources (SQ) which are integrated in the high voltage part and supply quiescent current to the units present in the high voltage part for the purpose of amplifying (V) or measuring (S) such telephone and/or data signals are
25 set, no later than when such data signals are received in the high voltage part, to current values which are higher than the current values for exclusive transmission of telephone signals situated within the frequency band provided for speech, such that the data
30 signals within the high voltage part are transmitted with a high bandwidth largely without distortions, and the power loss of the high voltage part is optimized.
2. The method as claimed in claim 1,
35 characterized in that, if neither data signals nor telephone signals are being transmitted in the high voltage part, such current sources supply each of the units present in the high voltage part only with current required for their quiescent operation.

Abstract

Method for optimizing the transmission properties and power loss of a high voltage part integrated in a subscriber line circuit for connecting a subscriber line

During XDSL data transmission in a high voltage part (HV) integrated in a subscriber line circuit, the current sources (SQ) which are integrated in the high voltage part and supply current to the units present in the high voltage part for the purpose of amplifying (V) or measuring (S) telephone signals and/or data signals, which are situated above the frequency band provided for speech, are set, no later than when such data signals are received in the high voltage part, to current values which are higher than the current values for exclusive transmission of telephone signals situated within the voice band provided for speech, such that the data signals within the high voltage part are transmitted with a high bandwidth largely without distortions, and the power loss of the high voltage part is optimized.

Figure

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